

I. GENERAL

PROJECT DESCRIPTION

This project involves the reconstruction of an existing signal to provide for additional through and right turn lanes along the I-95 exit ramp (Capital Beltway), a new median along US Route 1, and the addition of IKEA Way to the north side of the intersection. The existing signal poles located at all four corners of the intersection will be removed and new signal poles with mast arms and new pedestal pole will be installed at all four corners of the intersection. Detection cameras will be installed for all of the "left signal" lanes for IKEA Way and the I-95 exit ramp. Micro-probes will be used for the advanced detection along US Route 1, IKEA Way, and the I-95 exit ramp.

II. INTERSECTION OPERATION

- The intersection is to operate in a NEMA 8-phase, semi-actuated mode, with the East-West approaches running separately.

III. CONTROLLER REQUIREMENT

- Install a fully-actuated, eight phase controller with four (4) - four channel, time-delay-output loop detector amplifiers, and associated harnesses housed in a NEMA size "6" base mounted cabinet.

PROJECT CONTACTS

THE CONTACT PERSONS FOR DISTRICT #3 ARE AS FOLLOWS:

MR. CHARLIE WATKINS DISTRICT ENGINEER (301) 513-7311	MR. DENNIS McMAHON ADE CONSTRUCTION (301) 513-7345	MR. RICHARD DAFF DIVISION CHIEF, TOD (410) 787-7630
MR. MAJID SHAKIB ADE TRAFFIC (301) 513-7358	MR. BARRY KING CHIEF, TEDD (410) 787-4011	MR. EDWARD RODENHIZER CHIEF OF SIGNAL OPERATIONS (410) 787-7652

EQUIPMENT LIST A

- A. THE CONTRACTOR SHALL FURNISH THE INTERFACE EQUIPMENT FOR THE CAMERAS AND SHA SHALL INSTALL THE INTERFACE EQUIPMENT FOR THE CAMERAS.

EQUIPMENT LIST B

- B. EQUIPMENT TO BE FURNISHED AND INSTALLED BY CONTRACTOR.

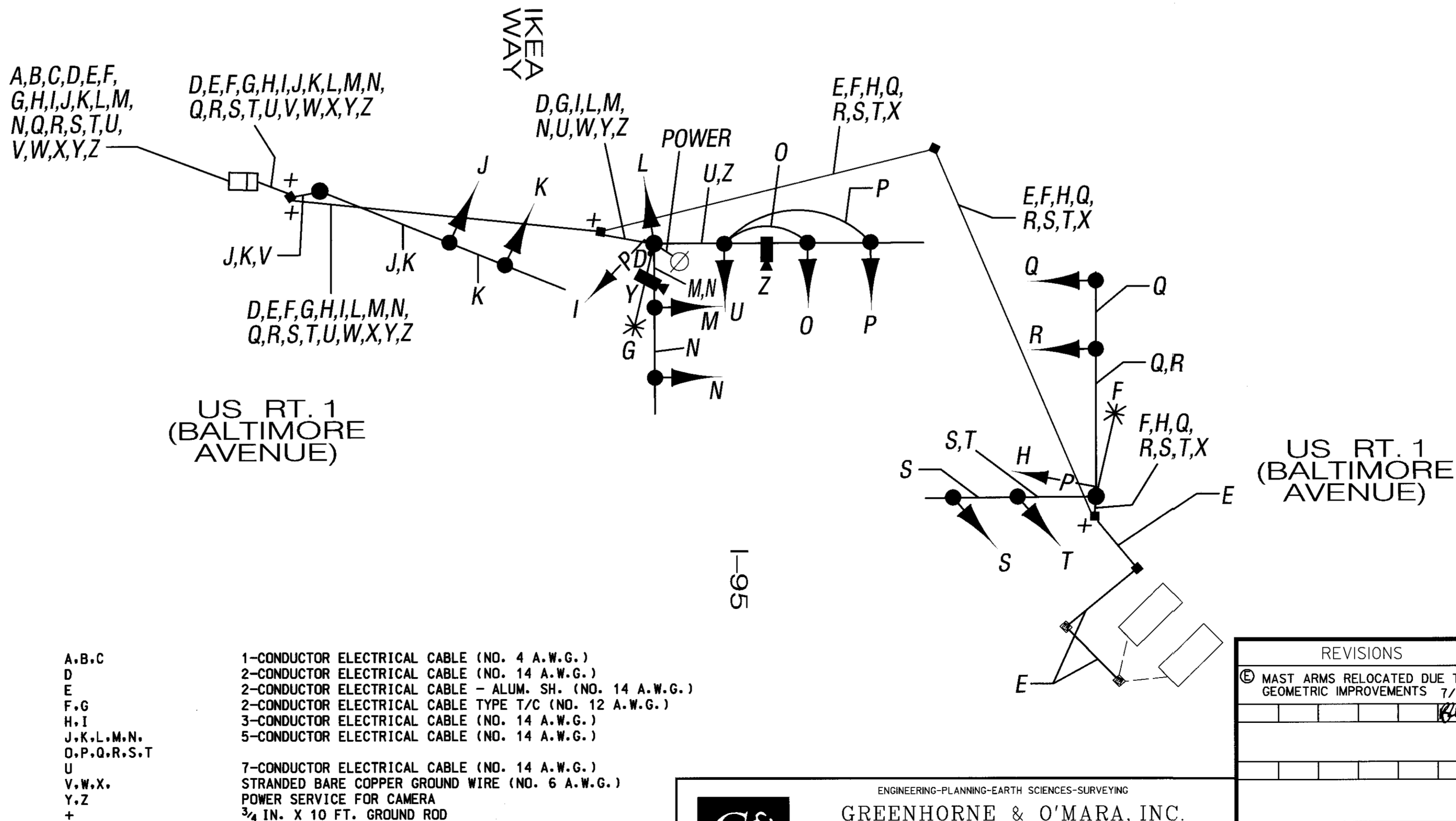
QUANTITY DESCRIPTION

- | | |
|--------|---|
| LS | MAINTENANCE OF TRAFFIC |
| 3 CY | TEST PIT EXCAVATION |
| 16 CY | FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION |
| 7 EACH | FURNISH AND INSTALL 12 IN., ONE-WAY, THREE SECTION (R,Y,G) BLACK-FACED TRAFFIC SIGNAL HEAD WITH ADJUSTABLE BRACKET FOR MAST ARM MOUNTING. |
| 3 EACH | FURNISH AND INSTALL 12 IN., ONE-WAY, THREE SECTION (R,Y,G,G) BLACK-FACED TRAFFIC SIGNAL HEAD WITH ADJUSTABLE BRACKET FOR MAST ARM MOUNTING. |
| 1 EACH | FURNISH AND INSTALL 12 IN., ONE-WAY, FOUR SECTION (R,Y,G,G,G) BLACK-FACED TRAFFIC SIGNAL HEAD WITH ADJUSTABLE BRACKET FOR MAST ARM MOUNTING. |
| 2 EACH | FURNISH AND INSTALL 12 IN., ONE-WAY, FIVE SECTION (R,Y,G,Y,G,G) BLACK-FACED TRAFFIC SIGNAL HEAD WITH ADJUSTABLE BRACKET FOR MAST ARM MOUNTING |
| 2 EACH | FURNISH AND INSTALL 12 IN., ONE-WAY, TWO SECTION (WALK, DON'T WALK) PEDESTRIAN SIGNAL HEAD WITH ADJUSTABLE BRACKET FOR MAST ARM POLE MOUNTING AND CUTAWAY VISORS. |
| 1 EACH | FURNISH AND INSTALL PEDESTRIAN PUSHBUTTON AND R10-4(2) SIGN - "PUSHBUTTON TO CROSS BALTIMORE AVE." |
| 117 SF | FURNISH AND INSTALL SHEET ALUMINUM SIGNS
- 1 EACH R3-6 SIGN (30" X 36") - MAST ARM MOUNT
- 2 EACH R3-3(2) SIGN (24" X 24") - MAST ARM MOUNT
- 2 EACH R3-5L SIGN (30" X 36") - MAST ARM MOUNT
- 5 EACH R3-5R SIGN (30" X 36") - MAST ARM MOUNT
- 2 EACH D3-2 SIGN (VAR. X 16") - MAST ARM MOUNT
- 1 EACH R3-2R SIGN (24" X 24") - MAST ARM MOUNT
- 3 EACH R10-11b SIGN (24" X 24") - MAST ARM MOUNT
- 1 EACH R10-6 SIGN (24" X 30") - MAST ARM MOUNT |
| 4 EACH | FURNISH AND INSTALL 3/4 IN. X 10 FT. GROUND ROD |
| 1 EACH | FURNISH AND INSTALL MAST ARM POLE AND 60 FT. MAST ARM |
| 1 EACH | FURNISH AND INSTALL MAST ARM POLE AND TWIN 50 FT./38 FT. MAST ARMS |
| 1 EACH | FURNISH AND INSTALL MAST ARM POLE AND TWIN 60 FT./38 FT. MAST ARMS |
| 2 EACH | FURNISH AND INSTALL 20 FT. LIGHTING ARM FOR TRAFFIC SIGNAL STRUCTURE |
| 2 EACH | FURNISH AND INSTALL 250 WATT HPS LUMINAIRE WITH PHOTOCELL |
| 120 LF | FURNISH AND INSTALL ELECTRICAL CABLE-2 CONDUCTOR (NO. 14 AWG) |
| 530 LF | FURNISH AND INSTALL ELECTRICAL CABLE-2 CONDUCTOR TYPE T/C (NO. 12 AWG) |
| 400 LF | FURNISH AND INSTALL ELECTRICAL CABLE-2 CONDUCTOR ALUM. SHIELDED (NO. 14 AWG) |
| 30 LF | FURNISH AND INSTALL ELECTRICAL CABLE-1 CONDUCTOR (NO. 14 AWG) |

PHASING
SEQUENCE
CHART

PHASE 05	R	R	G	G	R	R	R	R	R
PHASE 05 CHANGE	R	R	Y	Y	R	R	R	R	R
PHASE 02 & 06	G	G	G	G	R	R	R	R	R
PHASE 02 & 06 CHANGE	Y	Y	Y	Y	R	R	R	R	R
PHASE 03	R	R	R	R	R	R	G	G	G
PHASE 03 CHANGE	R	R	R	R	R	R	Y	Y	Y
PRE-EMPT PHASE	R	R	R	R	G	G	R	R	R
PRE-EMPT PHASE CHANGE	R	R	R	R	Y	Y	R	R	R
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R

WIRING DIAGRAM



EQUIPMENT LIST B CONTINUED

- B. EQUIPMENT TO BE FURNISHED AND INSTALLED BY CONTRACTOR.

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| QUANTITY | DESCRIPTION |
| 15 LF | FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID PVC CONDUIT (TRENCHED) |
| 350 LF | FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID PVC CONDUIT (SLOTTED) |
| 100 LF | FURNISH AND INSTALL 3 IN. SCHEDULE 80 RIGID PVC CONDUIT (TRENCHED) |
| 19 EACH | FURNISH AND INSTALL ELECTRICAL HANDHOLE |
| LS | REMOVE AND DISPOSE OF EXISTING MATERIALS |
| 150 LF | FURNISH AND INSTALL ELECTRICAL CABLE-7 CONDUCTOR (NO. 14 AWG) |
| 2100 LF | FURNISH AND INSTALL ELECTRICAL CABLE-5 CONDUCTOR (NO. 14 AWG) |
| 400 LF | FURNISH AND INSTALL STRANDED BARE COPPER GROUND WIRE (NO. 6 AWG) |
| 2 EACH | FURNISH AND INSTALL CAMERA ASSEMBLY |
| 660 LF | FURNISH AND INSTALL ELECTRICAL CABLE-3 CONDUCTOR (NO. 14 AWG) |
| 4 EACH | FURNISH AND INSTALL FOUR-CHANNEL, LOOP DETECTOR AMPLIFIER |

EQUIPMENT LIST C

- C. SHA FORCES SHALL REMOVE THE CONTROLLER AND ALL AUXILIARY EQUIPMENT FROM THE CONTROLLER CABINET. THE CABINET AND ALL OTHER MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

TS-2

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
Traffic Signal Plan (MOT Phase 1A)
US RT. 1 (BALTIMORE AVENUE) & I-95 RAMPS/IKEA WAY

DRAWN BY: OOP	F.A.P. NO.	TS NO.
CHECKED BY: RWH	S.H.A. NO.	TS-3130D-61
SCALE: 1" = 20'	COUNTY: PRINCE GEORGE'S	T.I.M.S. NO.
DATE: FEBRUARY 11, 1991	LOG MILE: 16006106.53	2 OF 22